

provided that the first and second domains are not totally deleted simultaneously, and (c) the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

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~~80.~~ The polypeptide according to claim 79, wherein the third domain is totally deleted and (a) the second domain is totally deleted and the first domain is partially deleted, (b) the second domain is totally deleted and the first domain has no deletions, (c) the second domain is partially deleted and the first domain is totally deleted, (d) the second domain is partially deleted and the first domain is partially deleted, (e) the second domain is partially deleted and the first domain has no deletions, (f) the second domain has no deletions and the first domain is totally deleted, (g) the second domain has no deletions and the first domain is partially deleted, or (h) the second domain has no deletions and the first domain has no deletions.

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~~81.~~ The polypeptide according to claim 79, wherein the third domain is partially deleted and (a) the second domain is totally deleted and the first domain is partially deleted, (b) the second domain is totally deleted and the first domain has no deletions, (c) the second domain is partially deleted and the first domain is totally deleted, (d) the second domain is partially deleted and the first domain is partially deleted, (e) the second domain is partially deleted and the first domain has no deletions, (f) the second domain has no deletions and the first domain is totally deleted, (g) the second domain has no deletions and the first domain is partially deleted, or (h) the second domain has no deletions and the first domain has no deletions.

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~~82.~~ The polypeptide according to claim 80, wherein the region corresponding to the sequence extending from the amino acid in any one of positions 326-341 to the amino acid in position 442 of SEQ ID NO: 4 is deleted.

~~83.~~ The polypeptide according to claim 79, wherein the first domain is partially deleted.

~~84.~~ The polypeptide according to claim 83, wherein the region corresponding to amino acids 1-266 of SEQ ID NO: 4 is totally or partially deleted.

~~85.~~ The polypeptide according to claim 84, wherein the region corresponding to amino acids 1-45 of SEQ ID NO: 4 is deleted.

~~86.~~ The polypeptide according to claim 79, wherein the polypeptide has at least 70% homology with SEQ ID NO: 4.

~~87.~~ The polypeptide according to claim 79, wherein the polypeptide has at least 80% homology with SEQ ID NO: 4.

~~88.~~ The polypeptide according to claim 79, wherein the polypeptide has at least 90% homology with SEQ ID NO: 4.

~~89.~~ A polypeptide comprising an amino acid sequence derived from the sequence of a Tbp2 subunit that comprises first, second, and third domains that correspond to the first, second, and third domains of SEQ. ID. NO.: 2 when the Tpb2 subunit and SEQ. ID. NO.: 2 are in maximum identical amino acid alignment, wherein (a) the maximum identical amino acid alignment is the alignment that maximizes the number of identical amino acids of the Tbp2 subunit with SEQ ID NO: 2 while allowing for the insertion of vacant positions, (b) the polypeptide is derived from the Tbp2 subunit by total or partial deletion of at least one domain, provided that the first and second domains are not totally deleted simultaneously, and (c) the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

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The polypeptide according to claim 89, wherein the third domain is totally deleted and (a) the second domain is totally deleted and the first domain is partially deleted, (b) the second domain is totally deleted and the first domain has no deletions, (c) the second domain is partially deleted and the first domain is totally deleted, (d) the second domain is partially deleted and the first domain is partially deleted, (e) the second domain is partially deleted and the first domain has no deletions, (f) the second domain has no deletions and the first domain is totally deleted, (g) the second domain has no deletions and the first domain is partially deleted, (h) the second domain has no deletions and the first domain has no deletions.

91.

The polypeptide according to claim 89, wherein the third domain is partially deleted and (a) the second domain is totally deleted and the first domain is partially deleted, (b) the second domain is totally deleted and the first domain has no deletions, (c) the second domain is partially deleted and the first domain is totally deleted, (d) the second domain is partially deleted and the first domain is partially deleted, (e) the second domain is partially deleted and the first domain has no deletions, (f) the second domain has no deletions and the first domain is totally deleted, (g) the second domain has no deletions and the first domain is partially deleted, or (h) the second domain has no deletions and the first domain has no deletions.

92.

The polypeptide according to claim 90, wherein the region corresponding to the sequence extending from the amino acid in any one of positions 346-361 to the amino acid in position 543 of SEQ ID NO: 2 is deleted.

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The polypeptide according to claim 89, wherein the first domain is partially deleted.

94.

The polypeptide according to claim 93, wherein the region corresponding to amino acids 1-281 of SEQ ID NO: 2 is totally or partially deleted.

~~95~~

The polypeptide according to claim 94, wherein the region corresponding to amino acids 1-40 of SEQ ID NO: 2 is deleted.

~~96~~

The polypeptide of claim 89, wherein the third domain has no deletions, the second domain is partially deleted and the first domain (a) has no deletions or (b) is partially deleted.

~~97~~

The polypeptide according to claim 96, wherein the region corresponding to amino acids 1-40 of SEQ ID NO: 2 is partially or totally deleted.

~~98~~

The polypeptide according to claim 89, wherein one or more of the regions corresponding to amino acids 362-379, 418-444, 465-481, and 500-520 of SEQ ID NO: 2 is partially or totally deleted.

~~99~~

The polypeptide according to claim 98, wherein (a) the first domain has no deletions and the third domain has no deletions, (b) the first domain has no deletions and the third domain is partially deleted, (c) the first domain has no deletions and the third domain is totally deleted, (d) the first domain is partially deleted and the third domain has no deletions, (e) the first domain is partially deleted and the third domain is partially deleted, (f) the first domain is partially deleted and the third domain is totally deleted, (g) the first domain is totally deleted and the third domain has no deletions, (h) the first domain is totally deleted and the third domain is partially deleted, or (i) the first domain is totally deleted and the third domain is totally deleted.

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The polypeptide according to claim 89, wherein the polypeptide has at least 70% homology with SEQ ID NO: 2.

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The polypeptide according to claim 89, wherein the polypeptide has at least 80% homology with SEQ ID NO: 2.

~~102~~ 102. The polypeptide according to claim 89, wherein the polypeptide has at least 90% homology with SEQ ID NO: 2.

~~103~~ 103. A polypeptide comprising amino acids 1-345 of SEQ ID NO: 2, wherein the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

104. A polypeptide having from 70% to 100% homology with the polypeptide of claim 103.

105. The polypeptide according to claim 104, wherein the polypeptide comprises amino acids 1-351 of SEQ ID NO: 6.

106. The polypeptide according to claim 104, wherein the polypeptide comprises amino acids 1-354 of SEQ ID NO: 8.

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107. The polypeptide according to claim 104, wherein the polypeptide comprises amino acids 1-358 of SEQ ID NO: 10.

108. The polypeptide according to claim 104, wherein the polypeptide comprises amino acids 1-322 of the polypeptide encoded by SEQ ID NO: 36.

109. The polypeptide according to claim 104, wherein the polypeptide comprises amino acids 1-346 of the polypeptide encoded by SEQ ID NO: 38.

~~110~~ 110. A polypeptide comprising amino acids 1-325 of SEQ ID NO: 4, wherein the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

~~115~~
~~111.~~ A polypeptide comprising amino acids 1-442 of SEQ ID NO: 4, wherein the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

~~116~~
~~112.~~ A polypeptide having from 70% to 100% homology with the polypeptide of claim ~~110.~~

~~117~~
~~113.~~ A polypeptide obtained by deleting amino acids 362-379, 418-444, 465-481 and 500-520 of SEQ ID NO: 2, wherein the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

Sub 118
Q3 ~~114.~~ The polypeptide according to claim 113, wherein amino acids 544-691 are deleted.

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~~115.~~ A polypeptide having from 70% to 100% homology with the polypeptide of claim 113.

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~~116.~~ The polypeptide according to claim 115, wherein the polypeptide is obtained by deleting amino acids 365-382, 421-453, 474-495 and 514-534 of SEQ ID NO: 6.

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~~117.~~ The polypeptide according to claim 115, wherein the polypeptide is obtained by deleting amino acids 366-383, 422-448, 469-485 and 504-524 of SEQ ID NO: 8.

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~~118.~~ The polypeptide according to claim 115, wherein the polypeptide is obtained by deleting amino acids 372-389, 428-454, 475-491 and 510-529 of SEQ ID NO: 10.

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~~119.~~ The polypeptide according to claim 115, wherein the polypeptide is obtained by deleting amino acids 339-356, 395-421, 443-458 and 477-497 of the polypeptide encoded by SEQ ID NO: 36.

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~~120~~. The polypeptide according to claim 115, wherein the polypeptide is obtained by deleting amino acids 363-380, 429-445, 467-482 and 501-521 of the polypeptide encoded by SEQ ID NO: 38.

¹²⁵
~~121~~. A polypeptide comprising amino acids 346-543 of SEQ ID NO: 2, wherein the polypeptide induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

122. A polypeptide having from 70% to 100% homology with the polypeptide of claim 121.

123. The polypeptide according to claim 122, wherein the polypeptide comprises amino acids 347-557 of SEQ ID NO: 6.

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124. The polypeptide according to claim 122, wherein the polypeptide comprises amino acids 350-557 of SEQ ID NO: 8.

125. The polypeptide according to claim 122, wherein the polypeptide comprises amino acids 354-551 of SEQ ID NO: 10.

126. The polypeptide according to claim 122, wherein the polypeptide comprises amino acids 323-521 of the polypeptide encoded by SEQ ID NO: 36.

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~~127~~. The polypeptide according to claim 122, wherein the polypeptide comprises amino acids 345-544 of the polypeptide encoded by SEQ ID NO: 38.

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~~128~~. A polypeptide comprising an amino acid sequence obtained from the sequence of a IM2394-type Tbp2 subunit, wherein the polypeptide is obtained by the deletion of one or more amino acids, provided that the polypeptide comprises a domain capable of binding to transferrin

and induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

F₁ ¹³⁹~~129~~. A polypeptide comprising an amino acid sequence obtained from the sequence of a IM2196-type Tbp2 subunit, wherein the polypeptide is obtained by the deletion of one or more amino acids, provided that the polypeptide comprises a domain capable of binding to transferrin and induces the production of neutralizing antibodies that recognize one or more strains of *N. meningitidis*.

REMARKS

The Claim Amendments

Claims 54-76 have been canceled and their subject matter has been incorporated into new claims 79-102. The new claims were added to correct multiple dependencies and to more distinctly claim that which the applicants regard as their invention. Support for the new claims 79-102 may be found throughout the specification, and particularly by the content of the description at page 7, line 25 to page 35 (claims 79, 89); page 8, lines 1-31 (claims 80-81, 90-91); page 8, line 32 to page 9, line 9 (claims 96, 97); page 9, lines 10-25 (claims 98, 99); page 9, line 26-39 (claim 92); page 10, lines 1-6 (claim 82); page 10, lines 7-33 (claims 83-85, 93-95), and page 10, lines 34-40 (claims 86-88, 100-102).

In addition, new claims 103-129 directed to specific embodiments were added. Support for these claims can be found in the specification at page 11, line 21 to page 13, line 22 (claims 103-127) and at page 6, lines 2-6 and page 7, lines 10-16 (claims 128, 129). Accordingly, no new matter has been added by way of the amendments.

The Pending § 112, Second Paragraph, Rejection